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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,072	03/30/2004	Dwight D. Poplin	10030850-1	5491

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EXAMINER	
LIVEDALEN, BRIAN J	

ART UNIT	PAPER NUMBER
2878	

DATE MAILED: 12/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/814,072	POPLIN, DWIGHT D.	
	Examiner	Art Unit	
	Brian J. Livedalen	2878	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 December 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18,20 and 21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,7-16,18,20 and 21* is/are rejected.

7)☒ Claim(s) *5,6 and 17* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This action is in response to amendment filed 12/7/2005.

Claims 1-18, 20 and 21 are pending.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 4, 8, 11 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Dutta (2002/0163524).

In regard to claims 1 and 11, Dutta discloses (fig. 1) an apparatus and method including a camera module (106 and 107); an I/O system (101); and a controller (fig. 2, 201) connected to the camera module and the I/O system, wherein the controller sets power consumption of lighting of the I/O system in response to a signal from the camera module indicating an ambient light level (page 3, paragraph 0031).

In regard to claims 3, 4, 8, and 13, Dutta discloses (fig. 1) the I/O system being a display (101) and the controller sets the lighting of the display in response to the signal from the camera module; and the controller turns off the lighting in response to the signal from the camera module indicating that the ambient light level is high (paragraph 0031, lines 10-15); and the camera module includes a dedicated ambient light sensor

(107), and the signal from the camera module indicates an intensity that the dedicated ambient light sensor measures (page 2, paragraph 0025).

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 11, and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Tsirkel et al. (2003/0122810).

In regard to claims 1 and 11, Tsirkel discloses (fig. 1), an apparatus and method including a camera module (165); an I/O system (145); and a controller (100) connected to the camera module and the I/O system, wherein the controller sets power consumption of lighting of the I/O system in response to a signal from the camera module indicating an ambient light level (see fig. 5, page 1, paragraphs 0011, 0014).

In regard to claim 16, Tsirkel further discloses activating a pixel sensor in an imaging array of the camera module, and measuring the ambient light using the pixel sensor activated (page 2, paragraphs 0023-0025). Since an image is composed of pixels, a pixel is inherently activated as claimed.

Claims 1, 11, 13, 14, and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Nose (JP 200364725).

In regard to claims 1 and 11, Nose discloses (fig. 1) an apparatus and method including a camera module (CCD 22 and 92); an I/O system (LCD 72) (paragraph 0047); and a controller connected to the camera module and the I/O system, wherein the controller sets power consumption of lighting of the I/O system in response to a signal from the camera module indicating an ambient light level (paragraphs 0063, 0068).

In regard to claims 13, 14, and 15, Nose discloses (fig. 1) adjusting the lighting of a display according to the ambient level measured by the camera (paragraph 0063); and operating the camera module to create a digital image, and displaying the image on the display (paragraph 0039).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsirkel et al. (2003/0122810) as applied to claims 1 and 11, and in view of Hotelling (2005/0051708).

In regard to claims 2 and 12, Tsirkel discloses (fig. 2) an apparatus and method for adjusting the lighting of a display for a laptop computer. Tsirkel fails to use the

ambient light sensor for controlling the lighting of the keypad. However, Hotelling discloses (fig. 1) an ambient light sensor (12 and 14) mounted on a laptop that does control the lighting of the keypad (page 1, paragraph 0008). It would have been obvious to one of ordinary skill in the art at the time the invention was made to also adjust the lighting of the keyboard to increase the visibility of the keys, making the use of the keyboard more accessible to the user.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsirkel et al. (2003/0122810) as applied to claim 1, and in view of Funston (6870567).

In regard to claim 7, Tsirkel discloses an ambient light sensor as set forth above. Tsirkel discloses the light sensor being a color camera with an array of pixels the signal from the camera corresponds to the intensities of the pixels (page 2, paragraphs 0023-0025). Since an image is composed of pixels, a pixel is inherently activated as claimed. Tsirkel remains silent regarding the means for detecting colors. However, Funston discloses (fig. 21) a camera module having an array of pixel sensors and the pixels being red, green, and blue pixels (column 9, lines 37-43, column 24, lines 51-65). It would have been obvious to one of ordinary skill in the art at the time the invention was made to detect colors using colored pixels in order to inexpensively define a color image.

Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dutta (2002/0163524) as applied to claim 8, and in view of Funston (6870567).

In regard to claims 9 and 10, Dutta discloses (fig. 1) a dedicated ambient light sensor (107). Dutta fails to disclose the sensor being made of multiple photodiodes covered by respective red, green, and blue colored filters. However, Funston discloses (fig. 21) a dedicated ambient light sensor (174) (column 4, lines 49-53). The ambient light sensor is made up of separate photodiodes (174) having respective red, green, and blue filters (184) covering each photo diode (column 15, line 67). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use photodiodes used to detect separate colors in order to more accurately determine the ambient light and more accurately control the lighting of the display.

Claims 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Funston et al (6870567).

In regard to claim 18, Funston further discloses (fig. 21) a camera module having an array of pixel sensors and the signal from the camera indicates an intensity measured by one of the pixels (column 11, lines 5-37). Funston further discloses a dedicated ambient light sensor (174) (column 4, lines 49-53). The ambient light sensor is made up of separate photodiodes (174) having respected red, green, and blue filters (184) covering each photo diode (column 15, line 67). Funston remains silent regarding the ambient light sensor and the array of pixel sensors are on the same semiconductor chip. However, integrating parts is of routine skill in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to integrate the ambient light sensor and the array of pixels in order to make the device more compact.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nose (JP 200364725) as applied to claim 1.

In regard to claim 21, Nose discloses (fig. 1) a lighting control device as set forth above. Nose further discloses the camera module having an array of pixel sensors and a dedicated ambient light sensor (paragraph 0047). Nose remains silent regarding the ambient light sensor and the array of pixel sensors are on the same semiconductor chip. However, integrating parts is of routine skill in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to integrate the ambient light sensor and the array of pixels in order to make the device more compact.

Response to Arguments

Applicant's arguments with respect to claims 1-17 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed 12/7/2005, with respect to claim 18 (formerly 19) have been fully considered but they are not persuasive. Making separate parts integral is of routine skill in the art. *In re Larson*, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA 1965). Making separate parts integral is patentable when the integration actually adds utility to the apparatus. *See Schenk v. Nortron.*, 713 F.2d 782, 218, USPQ 698 (Fed. Cir. 1983).

Allowable Subject Matter

Claims 5, 6 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: Claims 5, 6, and 17 are not anticipated or made obvious by the prior art of record. The prior art fails to disclose a camera module made up of an array of pixels in which one pixel with a green filter is used to measure ambient light in order to control an I/O system.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian J. Livedalen whose telephone number is (571) 272-2715. The examiner can normally be reached on 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on (571) 272-2328. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

bjl

THANH X. LUU
PATENT EXAMINER